



STUDIA VARIA BRUXELLENSIA
AD ORBEM GRAECO-LATINUM PERTINENTIA
V

Editores:
Rudolf DE SMET, Henri MELAERTS, Cecilia SAERENS

PAPYRI IN HONOREM
JOHANNIS BINGEN OCTOGENARII
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curavit

Henri MELAERTS



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119-120. TWO 4TH-CENTURY ACCOUNTS FROM KELLIS

Roger S. BAGNALL & Klaas A. WORP

The accounts¹ published here were excavated in 1993 in House 4². Both can be shown to belong to the same period as the Kellis Agricultural Account Book (found in House 2 six years earlier) and to concern many of the same types of expenditures³. There are, however, only occasional clues suggesting a more direct connection.

119. ACCOUNT OF EXPENDITURES IN WHEAT

These two pieces clearly formed part of the same account originally, but they are now separated rather than contiguous. In the first piece (93.110a), recto, the amounts are almost entirely lost at right, but occasional remains show that most of them were counted in *matia*. The totals at the bottom, however, indicate that some amounts must have been in artabas. This will particularly be true of the amounts in the opening section listing *hydreumata*. Little besides the amounts seems to be lost at right, and where restorations are possible (lines 28-34, especially), these are only a few letters long.

The second piece (here 119B) preserves the information that it is an account of barley. The relevant information in 119A is lost in line 1. The similarities to the expenditure accounts in the *KAB* suggests strongly that it is in wheat; such long accounts in *matia* occur there only in the cereals, which were the main staple used in expenditures (wine playing a lesser although important role). In the *KAB*'s expenditure accounts, the *mation* used is smaller than that in the income account. The latter is a tenth of an artaba, like the μέτρον commonly encountered in the papyri, but the former is 1/23 of the artaba (see *KAB*, pp. 47-48, for a detailed analysis and demonstration). To the best of our knowledge, this is a particularity of Kellis, or at least of the Oasis.

¹ We have considered whether fronts and backs of these accounts should be given different numbers as separate texts. We believe, however, that close connections between front and back are in both cases more likely than not, even if the current state of preservation leaves some uncertainty. We have therefore treated each papyrus as a single unit.

² The excavations at Kellis (Ismant el-Kharab) are directed by Colin A. Hope of Monash University (Melbourne) under the aegis of the Dakhleh Oasis Project. We are very grateful to Dr. Hope for the opportunity to publish them here and for writing a note on the archaeological context these papyri were found in (see the Appendix at the end of this paper), and to Dr. A. J. Mills, director of the DOP, for invaluable help in the field. Bagnall's work in Egypt was made possible by funds from the Stanwood Cockey Lodge Foundation of Columbia University; Worp was able to visit the Dakhleh Oasis thanks to a travel grant made available by the Faculty of Humanities, University of Amsterdam.

³ The account book is published as *PKell.* IV G. 96. Passages in this account are cited as *KAB* plus line numbers, the introduction to it with page numbers.

A

P.Kell. registration no. 93.110a Pl. 72 Kellis/House 4, Room 13, Level 2
4.6 x 28 cm IVth century

Recto

	ἀναλωμάτ(ων) [	«For expenditures
	Ψάι[τ()] Τεπηῆ [	To (?) Psais (son of?) Tepes
	κ...[.].[
	ὑδρ(εύματος) .[.]ατ( ) [	Hydreuma ..atob()
5	ὑδρ(εύματος) Πμ(ουν) Ἀμβροσ(ίου?) [	Hydreuma Pmoun Ambrosiou
	ὑδρ(εύματος) Ταμέρσ(ιος) [	Hydreuma Tamersios
	ὑδρ(εύματος) Πμ(ουν) Τβατ( ) [	Hydreuma Pmoun Tbat()
	ὑδρ(εύματος) Πμ(ουν) Ασβα[	Hydreuma Pmoun Asba[
	Ἄθυρ κδ Ἀμμ[ωνίω] [	Hathyr 24 to Ammonios [
10	Ἀγάθω ἀπερχ(ομένω) εἰς Ἴβ[ιν	To Agathos departing to Hibis [
	Τῦβι δ Πορφ[υρίω]	Tybi 4 to Porphyrios
	ἀπερχ(ομένω) εἰς Ἴβιν [	departing to Hibis [
	Θεοκρίτ(ω) ἐξ ἐπιστολ(ῆς) [	To Theokritos on the basis of a letter [
	εἰς περιστερ(εῶνα) Πμ(ουν) [	To the pigeon-house of Pmoun [
15	Πα.η() μ(άτια) [	Paleou (?) <i>mat.</i>
	Παχών ι Πορφ[υρίω]	Pachon 10 to Porphyrios
	ἐλθόντ(ι) ἀπὸ Ἴβε(ως) μ(άτια) [	coming from Hibis, <i>mat.</i> [
	Παῦνι α Ἀμμωνί[ω]	Pauni 1, to Ammonios
	ἀπερχ(ομένω) εἰς Ἴβειν μ(άτια) [	departing to Hibis, <i>mat.</i> [
20	[.....]..[
	[]	
	[]	
	[]	
	[Πο]ρφυρίω β[	To Porphyrios, 2nd [
25	ε...ε. Τεπηῆ [	... Tepes [
	τῶ ὄνω ἐν Ψ[	For the donkey in Ps[
	Τεπηῆ β̄ καὶ γ̄.[	Tepes, 2nd and 3rd [
	τῶ αὐτῶ ἀπὸ Π[αῦνι α]	To the same from Pauni [1st]
	ἄ[χ]ρι λ' τῆς ἡμ(έρας) α	until 30th, per day
30	μ(άτιον) α [μ(άτια) λ]	1 <i>mat.</i> [30 <i>mat.</i>]
	[Μεσ]ορή α' ἄχρι κ̄	Mesore 1 to 20
	τ[ῆ]ς ἡμ(έρας) α μ(άτιον) α [μ(άτια) κ]	per day 1 <i>mat.</i> [20 <i>mat.</i>]
	ἀπὸ κᾱ ἄχρι λ [τῆς]	From 21st to 30th, [per]
	ἡμ(έρας) α μ(άτιον) αS/ μ(άτια) [ιε]	day 1 1/2 <i>mat.</i> , [15] <i>mat.</i>
35	.ιουπτσα() ὑ(πέρ) κρη(θῆς) [μ(ατίων)]	... for barley, [<i>mat.</i>]
	ε, ἐλαί(ου) ξ(έστης), μ(άτια) [	5, 1 <i>sextarius</i> of oil, <i>mat.</i>
	ἐν ἀργυρ(ίοις) μ(άτια) [	In cash, <i>mat.</i> [
	γ(ίνεται) μ(άτια) ωνα Ϛ[	Total, 851 1/2 <i>mat.</i>
	γ(ίνονται) ὁμοῦ (ἀρτ.) ρξασ [	Total altogether, 161 1/2 art. [»

After line 39 is a margin of 2.3 cm.

Verso

Beginnings of 20+ lines, with no complete words readable.

- 2 We have restored a supralinear *tau* to end Ψαι because there is evidently nothing more at line level at this point, but the surface is damaged above. Whether one should resolve in the genitive or dative we cannot be sure. Τεπτη̄ occurs also in lines 25 and 27, in each case with the supralinear stroke over *sigma*. Whether this indicates abbreviation or rather an indeclinable Egyptian word (see *KAB*, p. 21) is difficult to say. Nor are we certain if Tepes is a personal or place name. From lines 27-28 it might seem more likely that it is a personal name.
- 4-8 We cannot identify the names of these *hydreumata* elsewhere. The appearance of Ambrosius amid the Egyptian names is striking.
- 9-10 Ammonios appears going to Hibis in 18-19, and it is possible that these lines should be taken as a single entry, restoring καλ in 9 and resolving ἀπερχ(ομένους) in 10. But the evidence seems insufficient to require such a restoration.
- 13 For ἐξ ἐπιστολ(ῆς), paralleled in 119B, 21, see (e.g.) *P.Abin.* 22, 10; 23, an instance in private dealings; most other instances refer to official letters that are the basis of an action. The only other possible restoration in this context, ἐπιστολ(αφόρου), would be preceded by διά and not ἐξ.
- 15 Possibly Παλη(ου); see *KAB*, p. 76, for references to this Pmoun.
- 26 The expenditure for the donkey calls to mind the numerous entries in *KAB* τῆ ὄνη; see *KAB* 61n.
- 27 What the indications of 2nd and 3rd mean we do not know; days of the month (here Pauni) seem most likely.
- 28-30 The computation is simple: 30 days at 1 *mation* per day = 30 *matia*. The expenditure *mation* was a small one, with 23 to the artaba (see *KAB*, pp. 47-48); this thus amounts to about 1.3 artabas for the month.
- 31-32 The computation is at the same rate as in the preceding lines.
- 33-34 For unknown reasons, the daily rate is 50 percent higher in this entry than in the two preceding ones.
- 35-36 How the letters at the start of 35 are to be articulated and understood, we do not know. The first letter is evidently either δ or σ. The reading of the start of 36 is also difficult; the shape of the first ε is such as to suggest an intended ει ligature, but no trace of ι is present. The ι plus abbreviation stroke of ἐλαί(ου) could also be supralinear τ. But we find no commodity normally measured in sextarii that could fit the traces if a *tau* is read. The computation (if our printed text is correct) is interesting for 5 *matia* of barley = 1 *sextarius* of olive oil. We find in fact in 120 that this equivalence is correct (if these are regular *matia*, that is; and as this is not an expense amount in this account, probably they are), for both 5 *matia* of barley and 1 *sextarius* of olive oil were worth 250 talents in that text.
- 37 This entry suggests, as do a few others, that when an expenditure was actually made in something other than *matia*, or was paid for by converting *matia* into cash or another good, the equivalent in *matia* was entered in the account. In this way the account could be unified in a single «currency».
- 38 Disregarding the half-*mation*, 851 *matia* divide precisely by 23 (expenditure *matia* per artaba) to yield 37 artabas.

B

This piece does not join 119A but is written in the same hand. A total at the start gives the same figure that appears at the bottom of 119A. It is also an account of expenditures in grain. From indications in 24-25 and 30-31 it seems likely that this is the account of expenditures in barley, where 119A is probably the account in wheat. Their precise relationship, however, remains uncertain. There are traces at the left side of the ends of 3-4 lines of a previous column. With the fibers.

P.Kell. registration no. 93.110b Pl. 73 Kellis/House 4
 composed of fragments from frames IVth century
 93.10, 93.103, and 93.108
 6.7 x 28 cm.

Recto

	γ(ίνεταί) ὁμοῦ (ἀρτάβαι) ρζαΣ		«Total altogether, 161 1/2 art.
	ἀναλωμάτων		Expenditures
	τιμ(ῆς) διζύφ(ων)	(ἀρτ.) θS'	For the price of jujubes, 9 1/2 art.
	ἐμοὶ ὑπ(ὲρ) συνη(θείας)	(ἀρτ.) δ	To me for <i>synetheia</i> , 4 art.
5	ὑδρ(εύματος) Θι ἐν Τεβην(ε)	(ἀρτ.) αLd	Hydreuma of Thi in Tebene, 1 3/4 art.
	ὑδρ(εύματος) Τιερβατωρα	(ἀρτ.) S'	Hydreuma Tierbatora, 1/2 art.
	ὑδρ(εύματος) Πμ(ουν) Χ.ωρ	(ἀρτ.) S'	Hydreuma Pmoun Ch.or, 1/2 art.
	ὑδρ(εύματος) Πμ(ουν) Τκι.ε	(ἀρτ.) γ	Hydreuma Pmoun Tki.e, 3 art.
	εἰς τὰ κάστρα	(ἀρτ.) ιαS'	To the camp, 11 1/2 art.
10	πιτ(τάκιον) ἐπιμελητ()	(ἀρτ.) γ	Receipt of epimelet(), 3 art.
	τῷ λογίῳ	(ἀρτ.) S'	To the ???, 1/2 art.
	τιμ(ῆς) νο(μισματίου) α εἰς τὸ ...		For the price of 1 <i>solidus</i> for...
	[]		lost
	[]		lost
15	[]		lost
	Ἑρμησία []		To Hermesias []
	[τ]οῖς ἐργάτ(αις) εἰς Ὀφελλ(ιανόν) []		To the workmen for Ophel- lianos []
	[Θ]ι ἐν Τεβηνε	(ἀρτ.) αLd	Thi in Tebene, 1 3/4 art.
	[.]λεια ιε	(ἀρτ.) ιβ	To -leia on the 15th (?), 12 art.
20	ἡμιολίου	(ἀρτ.) γ	For the extra half 3 art.
	[Π]ορφυρίῳ ἐξ ἐπιστ(ολῆς)	(ἀρτ.) ζS'	To Porphyrios on the basis of a letter, 7 1/2 art.
	[τῷ α]ὐτῷ ' εἰς συμπλήρ(ωσιν) φολ(έτρου)		To the same for payment of transport charges
	τῶν κτην(ῶν)	(ἀρτ.) S'	for the donkeys 1/2 art.

	[τι]μῆς νο(μισματίου) α εἰς τοὺς ἐξαργυ(ρισμοὺς)		For the price of 1 <i>solidus</i> for payment in money
25	[..] ἀποστολ(ῆς) δι(ὰ) Φαρίτ(ου) (ἀρτ.) ιη		for dispatch (?) through Pharites, 18 art.
	[τι]μ(ῆς) χόρτ(ου) χλωρ(οῦ) ὥστε		For the price of fresh fodder for
	[]		lost
	[]		lost
	[τι]μ(ῆς) χόρτ(ου) ξηρ(οῦ) (ἀρτ.) ..		For the price of dry fodder, .. art.
30	[τῆ]ς ἀμίψεως σίτου ῥυπαρ(οῦ) (ἀρτ.) ι		For exchange with «dirty» wheat, 10 art.
	[εἰ]ς ὑπερησ(ίαν) τοῖς ..α.ικ() ἐν Μεσοβη ὑ(πὲρ) τῆς οἰκ()		For service, to the... in Mesobe for the ???
	[..].αν...υ (ἀρτ.) αS		through Nilos (?), 1 1/2 art.
35	εἰς σίτογ ῥυπαροῦ		For «dirty» wheat
	ὁμοίως (ἀρτ.) ζS'		likewise, 7 1/2 art.
	γί(νονται) (ἀρτ.) ρκζS'		Total, 127 1/2 art.»

22 φορ(έτρου) || 32 ὑπηρεσίαν || 35 ῥυπαρόν

- 1 This total is identical to that in 119A, 39.
- 3 Jujubes were about twice the value of barley for an equivalent amount (*KAB*, p. 77), so this payment might have sufficed to acquire a bit less than 5 art. of jujubes.
- 4 Basically the word *συνήθεια* has three «main» meanings, viz. (a) «acquaintance, social contact», (b) «habit, custom», and (c) «customary gratuity»; as regards the last meaning a distinction can be made between (c.1) «perquisites, wages», and (c.2) «gratuities given as a token of good will next to the usual payment of rent etc.» (on this kind of gratuities cf. K.A. WORP's forthcoming article, «Deliveries for *συνήθεια* in Byzantine papyri»). We feel that in the present context meaning «c.1» is applicable.
- 5 Θι, sometimes Θιω, was a hamlet; see *KAB*, p. 75. Tebene is otherwise known only from line 18 of the present account.
- 6-8 These *hydreumata* are not otherwise attested. In 7, Χζωρ seems to us the most likely reading. In 8, probably either Τκιττε or Τκιλε. In 8 the numeral is corrected from *alpha*.
- 9 τὰ κάστρα appear in *KAB* 793 and 1263 as the destination of payments. The only known military garrison of the Dakhleh Oasis was located at Trimithis, and these references probably refer to that camp.
- 10 We cannot tell whether we should resolve ἐπιμελητ() in the singular or the plural.
- 11 No obviously suitable meaning for τῷ λογίῳ has come to us, no matter whether it is the dative of λογεῖον (speaking place, stage, platform) or λόγιος (eloquent, erudite) or λόγιον (oracle).
- 16 Hermesias was an agent for the estate of Faustianus son of Aquila, the landlord of the *KAB* (p. 71 for references). His presence here is the closest explicit link to that estate.
- 17 For the name Ophellianos in texts from Kellis there is a parallel found in l. 3 of the inscription published (without previous authorization by Dr. Hope) by A.

- HUSSEIN - G. WAGNER, «Une dédicace grecque du grand Temple d'Esment el-Kharab», *ZPE* 101 (1994), pp. 109-112 (= *SEG* XLIV [1994], 1489); cf. «Bulletin épigraphique», *REG* 94 (1993), n° 690). The papyrus P93.59 (4th cent.) referred to in fn. 8 of the *ZPE* article is still unpublished. Further identification of these Ὁφελλιανοί does not seem warranted.
- It is possible that in the lacuna in this line stood a word like ὑδρ(εύματα) linking 17 and 18 into a single entry in the account.
- 18 See line 5 for this locality.
- 19 This enigmatic entry might be restored as [Ἡ]λεία, to Elias, on the 15th.
- 20 What this is an extra half-payment for is not evident; certainly not for the preceding entry. It might be a penalty for late payment on some contract not otherwise mentioned.
- 21 See 119A, 13 for another payment made on the basis of a letter, perhaps from the landlord.
- 24-25 An amount of 18 art. for a *solidus* would be enormously out of line with normal wheat equivalents (8 to 10 artabas per *solidus*), but it would be very much in line with the usual relationship of barley to wheat of about 1:2. It is possible that a numeral is lost in the lacuna at the start of 25; cf. the use of ἀποστολή in 120 verso, col. III, 42. For Pharites, see 120 verso, col. II, 17.
- 30-31 Here and in 35-36 we are not told how much «dirty», i.e., not yet properly cleaned of extraneous material, wheat was acquired for the amounts of barley stated. Such a transaction would, however, make no sense in a wheat account.
- 32 We have not been able to find a word conforming to the well-preserved but rather ambiguous letters here; it seems to end in αλικ or ατικ.
- 33 One might resolve simply οίκ(ιας), but it is also possible that we have οίκ(οδε-σποίνης), the wife of the landowner, on whom see *KAB*, p. 70.
- 34 One might have here δ]ιὰ Νίλου or perhaps the end of a name in ανιτης in the genitive.
- 37 The entries with preserved amounts in this column total 96 art., leaving 31 1/2 art. for the lost numerals in 12-17 and 26-29.

Verso

On the verso across the fibers is a very fragmentary column concerning expenditures of something measured in *maria* and *sextarii*. In an expenditure account, this is almost certain to be wine, although oil can also be measured with these units (see *KAB*, pp. 48-49). The *marion* is a distinctive Oasite measure. Interpretation of something so fragmentary must be very reserved, but it looks as if 368 (*maria*?) in line 1 is a starting total, from which are subtracted major disbursements of 255 and 81 in lines 2 and 3. Line 5 may represent a balance left from the previous year, and the succeeding lines then smaller disbursements.

]τξζη
].. τι(μ-) σνε
]. πα
] τι(μ-) ...
 5]..τη ἐλοιπ(ογραφ-) μγ
].ο μάρ(ια) κδS/

-] ὑπὲρ(εσίας) μάρ(ια) γ
] ω.
] μάρ(ια) β
 10] . [μάρ(ιον)] α
 ὑπε]ρησ(ίας)
] ' α
 ὑπερ]ησ(ίας) μάρ(ιον) α
] μάρ(ιον) α
 15] ι.
 ?μάρ]η(ια) ις γ ' (ὄν) ἐγρα()
] . ις
] .
] ξ(έσται) κ
 20] ξ(έσται) ιε
] ξ(έσται) ε
] . Μεσοβη
] ξ(έσται) ιγ
] ξ(έσται) ις

11, 13 ὑπηρεψίας

- 5 **λοιπογραφέω** is the standard term for a balance carried forward from another account, perhaps that of the previous year (see *WB*, II, p. 37 *s.u.*). What form is to be resolved here cannot be determined because the context is too fragmentary.
 7 The *alpha* of μάρ(ια) is perhaps remade.
 8 The second letter seems to be *nu* or *pi*, the third *alpha* or *omega*.
 12 Probably we should restore μάρ(ια), of which the surviving hook is the abbreviation mark.
 17-18 There is a 3 cm. blank between these lines; we cannot say if entries are missing or not, but the change in units after this point may suggest that in fact a new account began.

120. ACCOUNT OF EXPENDITURES IN MONEY

This papyrus is difficult to present clearly because of its multiple uses. It was cut from a piece already used on the recto (with the fibers) for a contract, of which the end survives, badly damaged, upside down at the bottom of the recto. That contract bore a consular date to 360. The account on the recto had one column in money and a second, shorter column with a mixture of outlays in money and in oil. Most of the first column is now lost. The papyrus was then reversed and used for at least three columns of entries, in money, written across the fibers, of which the first is now virtually lost but the other two well-preserved. As we will see below, ad lines 37 and 41, the account mentions a 9th and 10th indictions which are probably 365/366 and 366/367, dates to which the price indications in the account are well suited.

P.Kell. registration no. 93.16
11.2 x 13.2 cm.

Pl. 74+75 Kellis/House 4, Room 1B, Level 1
IVth century

Remnants of Text 1 (contract)

ἐφ' ὑπογρ[αφῆς]...[
ἐπερωτηθεῖς ὡμ[ολόγησα.
blank space
ὑπατίας *traces*
Ἀγούστου τὸ ι' καὶ *traces*
5 του ..[...]..
4 Ἀγούστου

3-5 This can only be the consulate of Constantius X and Julian III in 360, see *CLRE* 254-55 *s.a.* We cannot tell from the scanty traces exactly how line 5 read.

Main account (2nd hand)
Column I

] . ὑπ(ἐρ)
] ,Αχξ
] . 'νς '
] φ
vacat 1 cm.
10 ἀ]πὸ νο(μισματίων) β και
οὔ]τως.
] . (μυρ.) α ,E
] ,Hσ
] ,Σ
15] ,E

Column II

τιμ(ῆς) σινδ(όνων) ὁμοί(ως) ξ(υγῶν) β ,E	Price of 2 pairs of linen sheets, likewise 5,000 (talents)
ἐν ἀργυρ(ίοις) σ <i>vacat</i> 2.5 cm.	In cash, 200 (tal.)
τιμ(ῆς) κέλλα ἐλαί(ου) χό(ες) δ	Price of a <i>kella</i> , 4 <i>choes</i> of oil
τιμ(ῆς) κηπίου τάλ(αντα) ,Γφ	Price of a garden, 3,500 tal.
20 ὑπ(ἐρ) ἐλαί(ου) χο(ῶν) βS/	for 2 1/2 <i>choes</i> of oil

τιμ(ῆς) λυχνία χρο(ῦς) α ξ(έσται) Price of a lampstand, 1 *chous*, 1 1/2 *sext*.
αS/

τιμ(ῆς) ξύλον ἕστον ,Γ Price of wooden loom beam, 3,000 (tal.)

19 κέλλας || 22 λυχνίας || 23 ξύλου ἕστου

- 16 See for a similar entry below, verso col. II, 27, where 3 pairs of *sindones* are priced at 7,500 talents, again 2,500 per pair. *σινδών* often refers to a sheet used to wrap a body, but its precise use here is not known, and editors have generally translated it cautiously. See Lauffer's edition of the *Edictum de pretiis* 28.7-36 (p. 275) for references. The abbreviation ζ() might in principle be resolved also as ζ(ευγών) or even ζ(ευγαρίων), but in late antiquity the synonymous ζυγή is the dominant form in expressions of this sort referring to cloth; cf. (e.g.) *PSI* III 183, 6; 225, 4; *POxy.* XVI 1843, 19.
- 18 With the *chous* of oil at 1,500 tal. (see verso 29 and 32 below), the price is the equivalent of 6,000 tal. Our house-property prices for the period are entirely for rents, and we cannot offer any direct comparand for this price.
- 19-20 This equivalence prices the *chous* of oil at 1,400 tal. rather than the 1,500 normal in the rest of the account (cf. note to line 18).
- 21 One could alternatively suppose that this is a neuter plural for λυχνίον, lamp, and that we should read λυχνίων. The substantial price, equal to 1,875 tal. (1.5 *sext.* = .25 *chous*), rather suggests that a metal lampstand is in question (see *WB*, II, p. 43 *s.v.*).

At a right angle in the margin:

(3rd hand?) λόγ(ος) ταλ(άντων)

Another 6 cm. to the right:

] (ταλ.)

25] ἤγ(ος) ἀπο.[

Verso

Column I

]c ι.

].

] ἰνδ(ικτίονος)

].

5

].

].

]γ

]γ

]γ

10

]τ

].

Column II

- 15 τιμ(ῆς) σίτου μ(ατίων) γ τ For the price of 3 *mat.* of wheat, 300 (tal.)
 τιμ(ῆς) κριθ(ῆς) μ(ατίων) ς τ For the price of 6 *mat.* of barley, 300 (tal.)
 Φαρίτη ὑδρείας To Pharites for irrigation
 Γενα δροθ() Πισιστράτ(ω) of Gena delivered to Pisistratos
 ἐλαίου χό(εζ) ιζ ὑπ(έρ) 17 choes of oil for 1 solidus
 νο(μισματίου) α and 1000 tal.
- 20 [[καὶ ταλ(άντων) Α]] Total 1 *solidus* and tal.
 γί(νεται) νο(μισμάτιον) α
 καὶ τάλ(αντν) myr. 2, 5000 for 1 *solidus* and
 (μυριάδες) β Ε ὑπ(έρ) 1000 tal.
 νο(μισματίου) α καὶ
 ταλ(άντων) ,Α
- 25 ὑδρ(είας) Γενα For irrigation to Gena, 4 *solidi* and
 νο(μισμάτια) δ καὶ 4000 tal.
 τάλ(αντα) ,Δ
- (ῶν) τιμ(ῆς) σίτ(ου) (ἀρταβῶν) Of which, for the price of 4 art. of wheat,
 2,800 (tal.)
 τιμ(ῆς) συν(δόνων) ζ(υγῶν) For the price of 3 pairs of linen sheets,
 γ ,Ζφ 7,500 (tal.)
 τιμ(ῆς) κριθ(ῆς) (ἀρταβῆς) α φ For the price of 1 art. of barley, 500 (tal.)
 τιμ(ῆς) ἐλαί(ου) χό(ῶν) δ ,ς For the price of 4 *choes* of oil, 6000 (tal.)
- 30 δ(ιὰ) Κύρα σν Through Kyra, 250 (tal.)
 ἐν ἀργυρ(τοίς) καὶ σίτ(ω) ,Βφ In money and wheat, 2,500 (tal.)

17 ὑδρείας *pap.* 24 ὑδρ *pap.*

- 15 The *mation* of wheat is 100 tal., thus the artaba 1000 tal.
- 16 The *mation* of barley is 50 tal., thus the artaba 500 tal., exactly half the price of wheat in line 15.
- 17 For Pharites, see above, 119B verso, 24-25. There is a horizontal stroke, perhaps a slurred diaeresis, on top of the upsilon of ὑδρείας. The absence of ὑπέρ is noticeable; it is conceivable that what we see is in fact the preposition, with the upsilon of the following word omitted by haplography, but simple omission of the preposition seems to us a more economical hypothesis. Cf. line 24 below for the same phenomenon.
- 19 For the difficulties raised by the apparent oil valuation here, cf. the note on prices at the end of this article.
- 21-23 The syntax of these lines is not entirely clear, particularly because we are lacking the earlier parts of the account in the previous column. At first glance it appears that the total is 1 solidus plus the sum of 25,000 talents in place of 1 solidus and 1,000 talents. If that is correct, it gives an equivalence of 24,000 talents per

solidus, or 1,728,000 talents per pound of gold. This is a level characteristic of the 380s or later, and profoundly at odds with the commodity prices in the account — except perhaps for the oil valuation in line 19. Cf. the note on prices below for an approach that does not encounter this difficulty.

21 The *alpha* in the number of *solidi* is remade from *beta* (2).

22 The symbol for myriads also appears in col. III, 36.

24 See note to line 17 for the writing here.

27 For the linen sheets and the same price as here, cf. recto, col. II, 16.

28 Barley at 500 tal. per artaba, cf. line 16.

29 Oil at 1,500 tal./*chous*, as normally in this account.

31 ἐν ἀργυροῖς cf. *O.Leid.* 354, 2.

Column III

τιμ(ῆς) ἐλαίου(υ) ζ(έστου) α σν For the price of 1 *sext.* of oil, 250 (tal.)

τιμ(ῆς) ἐριδ(ίου) μν(ῶν) δδ /ερ For the price of 4 1/4 *mnai* of wool, 5,100 (tal.)

τιμ(ῆς) πορφ(ύρας) λιτ(ρῶν) β /Δφ For the price of 2 lbs. of purple (wool), 4,500 (t.)

35 τιμ(ῆς) ἐλαίου(υ) δ(ιὰ) Ψ(άιτ(ος) και For the price of oil through Psais and
Ἀμμων(ίου) χο(ῶν) ζ (μυρ.) α φ Ammonios, 7 *choes*, 10,500 (tal.)

κανόνος ἰ ἰνδ(ικτίονος) /Βτ For the *kanon* of the 10th indiction, 2,300 (tal.)

Παπνουθ(ίω) Ἡρακλείω To Papnouthios son of Herakleios

Κοραυ ὑπ(ἐρ) τιμ(ῆς) ἐριδ(ίου) Αχ Korau for the price of wool, 1,600 (tal.)

40 Λιβεριῶ ὑπ(ἐρ) δωκ(οῦ) σ To Liberios for a beam, 200 (tal.)

Αἰδεσίω ὑπ(ἐρ) κανόν(ος) θ /Αλ To Aidesios for the *kanon* of the 9th (ind.), 1,900

ὁ αὐτ(ός) ὑπ(ἐρ) β ' ἀποστολ(ῆς) The same for the 2nd dispatch, 1,700 (tal.)
/Αψ

εἰς τὰ κάστρα ὑπ(ἐρ) σίτ(ου) ψν To the camp for wheat, 750 (tal.)

Ἡλιοδώρ(ω) Γενα ὑπ(ἐρ) To Heliodoros son of Gena for

45 δρομ() καμ(ήλων) β ρνη 2 camel trips (?), 158 (tal.)

Νεῖλω στρατιώτ(η) σίτ(ου) μ(άτια) To Neilos the soldier, 2 *mat.* of wheat
β

38 Ἡρακλείου (presumably) || 40 δωκ(οῦ); *kappa* corrected from *chi*

32 The oil price is that normal, as 1 *sext.* is a sixth of a *chous*.

33 Wool is thus 1,200 tal. per *mna*. At roughly the same level as an artaba of wheat, that seems much higher than the prices we have earlier in the century (*P.Sakaon* 95 and *P.Oxy.* LIV 3751, of 301 and 319 respectively), where a pound of wool (just smaller than the *mna*) brings only about an eighth to a tenth the value of an artaba of wheat at the time. In no case, however, do we have enough information to assess the significance of the numbers. If wool was imported into the oases, a higher price would be reasonable, but transportation alone cannot account for the difference.

- 34 Purple at 2,250 tal./*litra*, if compared to the price of wool in line 33, probably represents purple-dyed wool rather than the dyestuff itself. But we have no other fourth-century purple prices to compare. On purple see K.A. Worp, «On the Meaning of πορφύρα/πορφύριον in Greek Documentary Papyri», *MBAH* 16 (1997), pp. 57-66.
- 35-36 This is the standard oil price of 1,500 tal./*chous*.
- 37 The 10th indiction here may be the current one; the 9th is mentioned four lines below. The first 10th indiction after 360 was 366/367, and that must be the year meant here, as by 381/382 price levels had changed substantially.
- 39 For the mysterious Korau, see *KAB*, p. 71. It is a personal name, not a toponym. He may have been an agent for the estate of Faustianus, but little is known. Here the syntactic relationship of Korau with the entry in the previous line is unclear. At the price given in line 33, the 1,600 tal. here would represent 1 1/3 *mna*.
- 40 The name Liberius, rare in Egypt, seems certain; Τιβερίω is not a possible reading.
- 41 For the indiction, see above, note to line 37. The only instance of Αιδέσιος in the *DDBDP* is *P.Oxy.* LVI 3859 II, 33.
- 42 Understand τῷ αὐτ(ῶ), probably. What the 2nd ἀποστολή here refers to, we do not know; perhaps an installment of some amount due.
- 43 For the army camp at Trimithis, see above, no. 119.
- 44-45 Post camels? Cf. *WB*, I, p. 400 *s.v.* δρόμος, 4. The modest amount of the entry shows that one cannot be dealing with the acquisition of camels, however, and probably the amount is paid for the service. In that event one might understand δρόμ(ων), two trips by camel, or δρόμ(ου), a trip made by two camels.

The prices given in this account are as follows:

- Wheat, 1000 tal./art. (verso 15) and 700 tal./art. (verso 26)
- Barley, 500 tal./art. (verso 16, 28)
- Oil, 250 tal./*sext.*, 1,500 tal./*chous* (verso 29, 32, 35-36), 1,400 tal./*chous* (recto 20-21)
- Oil, 1 *solidus* for 17 *choes* (verso 19)
- Wool, 1,200 tal./*mna* (verso 33)
- Purple wool, 2,250 tal./*litra* (verso 34)
- Linen sheets, 2,500 tal./pair (recto 16, verso 27)
- Gold *solidus*, perhaps 24,000 tal. (verso 21-23n.)

The direct overlaps of prices with those in the *KAB* are not numerous. The clearest is oil, where the 250 tal./*sext.* (= 1,500 tal./*chous*) price level is well attested in *KAB* (see *KAB*, p. 55). Cereal prices in the *KAB* are either indirectly computed or problematic, but 1000 tal./art. for wheat is implied in some equations involving transactions with chickens (*KAB*, p. 52). Barley, by contrast, seems to be as expensive as wheat in some conjectural computations in *KAB*, but these are all uncertain and problematic. Overall, it seems accurate to say that *KAB* and our second account here date from roughly the same period, and the connections between the *KAB* and no. 119 probably justify assigning it to the same period also. In the introduction to the *KAB* (p. 59), it is concluded that «the likelihood is thus that the range [sc. of the value of gold per lb.] at the time was in the 400,000 to 700,000 range». On that

basis, dating the *KAB* to 361/362 to 363/364 seemed preferable to placing it a 15-year cycle later.

Certainly the indexes for a pound of gold generated by these commodity prices agree with these conclusions. Wheat gives an index of 576,000 or 403,200 using the methodology of Currency and Inflation; barley 576,000; oil of 720,000. Wool, purple, and linen sheets do not provide sufficiently well-attested or standardized commodities to be useful in this regard.

But there are two problems. The first is the possible solidus price in verso 21-23, which would give an index of 1,728,000, or between 2.5 and 3 times the level apparently prevailing with these commodities. The second is the reading ιζ in verso, col. II, 19 for the number of *choes* of oil given on behalf of a *solidus* (or originally perhaps a *solidus* plus 1,000 tal.). This would give an index of 17×6 (*sextarii* in a *chous*) $\times 250$ (talents per *sextarius*) $\times 72 = 1,836,000$. That is, these two elements agree roughly with one another, but not with anything else.

Matters are made more difficult by the fact that 102 *sextarii* per *solidus* is very much out of line with other known prices for oil in the entire late antique period in Egypt. These have been collected by F. MORELLI, *Olio e retribuzioni nell'Egitto tardo* (V-VIII d. C.) (Firenze, 1996), pp. 139-152. Prices for radish oil are more common than those for olive oil, but even for the less prized radish oil the number of *sextarii* per *solidus* rarely rose above 50. The evidence for better oil suggests a number around 40. Indeed, if the *iota* in the numeral here were not present, we would have a figure of 42 *sextarii* per *solidus*, perfectly in line with known amounts and yielding an index of 756,000, very much in agreement with that suggested by the direct oil prices here. It is of course possible that the *iota* is an error of the scribe, but arbitrary excision is a move of desperation, and we believe another explanation is more likely.

What is numerically most striking is that the number of talents given in line 22 (25,000) is almost precisely the product of 17 times the value of a *chous* of oil (1,500 tal.) at the standard price shown in the account (25,500). This is most unlikely to be a coincidence. We are unable to reconstruct exactly what the scribe should have written here, but it seems probable that in fact we are not dealing with amounts totally outside the ranges described for other commodities (and for oil in its other appearances), but with a confusing summary statement about this large transaction. With slight rounding, the transaction was valued at 25,000 talents. If this is correct, then we think that it remains most likely that this account is indeed to be dated to the same period as the *KAB*. The precise relationship of the talents to the *solidi* is not clear from the summary, but it is quite possible that we should see 2 *solidi*, 1000 talents as the correct equation. In this case, the solidus would be valued at 12,000 talents, the pound of gold at 864,000 talents. That is close enough to our other estimates to be reasonable.

APPENDIX

The Archaeological Context

Colin A. HOPE

The two documents which are discussed above, P93.16 and P93.110, were found during the 1993 season of excavations¹ at Ismant el-Kharab in House 4 within the central residential sector of the site². This structure is located due east of the entrance into the large mud-brick Enclosure 1 which contains the temple complex dedicated to Tutu (Τῦθου). Although incompletely explored, the structure would appear to represent several contiguous units which may not have communicated one with the other. The nucleus comprises two levels with seven rooms on the upper floor and eight on the lower; against the northern half of its west wall is located a stairway and two further rooms, one at each level, which form a part of this unit. Against the south half of the west wall is a second unit, again on two levels, comprising a stairway leading to four upper rooms and an unknown number of rooms at ground level. On the east side of the central unit are further rooms; only part of their upper level was revealed and these are accessed by a stairway built on the south. Other rooms abut the main unit and that to its south-west extending the complex for an uncertain distance to the west. It is built entirely of mud brick, with most of the roofs barrel-vaulted, though some rooms in each of the units isolated to date also have flat roofs. Unlike the other house units examined in Area A, there is no evidence that any part of this complex was provided with an open courtyard; rather it represents a different type of urban development with discrete residential units abutting one another and opening off lanes. Excavation was focused upon the core unit and only part of this was excavated due to its structural weakness. The finds reveal that the occupants were probably more wealthy than those of the other houses which have been examined. Amongst a plethora of material were 34 fragments of inscribed wooden boards, 87 papyrus deposits, 16 ostraka, 126 bronze

¹ The excavations are conducted by the writer on behalf of the Dakhleh Oasis Project which is directed by Anthony J. Mills and sponsored by the Society for the Study of Egyptian Antiquities (Toronto) and the Royal Ontario Museum. Funding for the work came from the Australian Research Council in the form of a grant administered by Monash University (Melbourne); additional funding derived from Edith Cowan University (Perth) and Rosemary and Eric Cromby. The excavation of House 4 was supervised by Michael Birrell (Macquarie University) assisted by Megan Bowman (Monash University).

² For the location of this sector see illustrations 2-3 in C.A. HOPE, «Three Seasons of Excavation at Ismant el-Gharab in Dakhleh Oasis, Egypt», *MedArch* 1 (1988), pp. 160-178; for a brief description of House 4 see G.E. BOWEN - C.A. HOPE - O.E. KAPER, «A Brief Report on the Excavations at Ismant el-Kharab in 1992», *Bulletin of the Australian Centre for Egyptology* 4 (1993), pp. 24-25, and for the site, C.A. HOPE, «Dakhla Oasis, Ismant el-Kharab», in K.A. BARD (ed.), *Encyclopedia of the Archaeology of Ancient Egypt* (London-New York, 1999), pp. 222-226, and IDEM, «The Find Context of the Kellis Agricultural Account Book» in R.S. BAGNALL, *The Kellis Agricultural Account Book (P.Kell. IV Gr. 96)* (Oxford, 1997), pp. 5-16.

coins and 140 registerable objects, which include examples of types rarely found at the site. Notable are fragments from a faience amphora of the type which has been ascribed to the first to second centuries CE³ and terracotta figurines, including one bust of Isis-Demeter⁴. The coins range in date from Hadrian to Valentinian I/Valens⁵. One of the ostraka, which are all in Greek, dates from the reign of Diocletian (possibly from 294/295?), another contains a receipt for a tax on alum for the 13th indiction year (= 324/325?); most ostraka probably date from the late third or fourth century. The central unit would appear to have been occupied from the late third to late fourth centuries, which is confirmed by two dated Greek papyrus texts found in this unit, P93.28 and P93.60/71, which preserve dates of 350 and 368 respectively. Whilst the editing of the texts is still incomplete, the range of material identified so far is extremely interesting and, in addition to economic texts, includes both orthodox and Manichaean christian documents in Greek and Coptic⁶.

P93.16 was found in sand (deposit 1) on the floor of room 1B, an upper room on the south of the unit, 0.60m below surface; P93.110 was found in the stairway room 13, in a deposit which filled the area from the lowest landing to the floor.

³ See G. GRIMM, «Two Early Imperial Faience Vessels from Egypt», *Miscellanea Wilbouriana* 1 (Brooklyn, 1972), pp. 71-100.

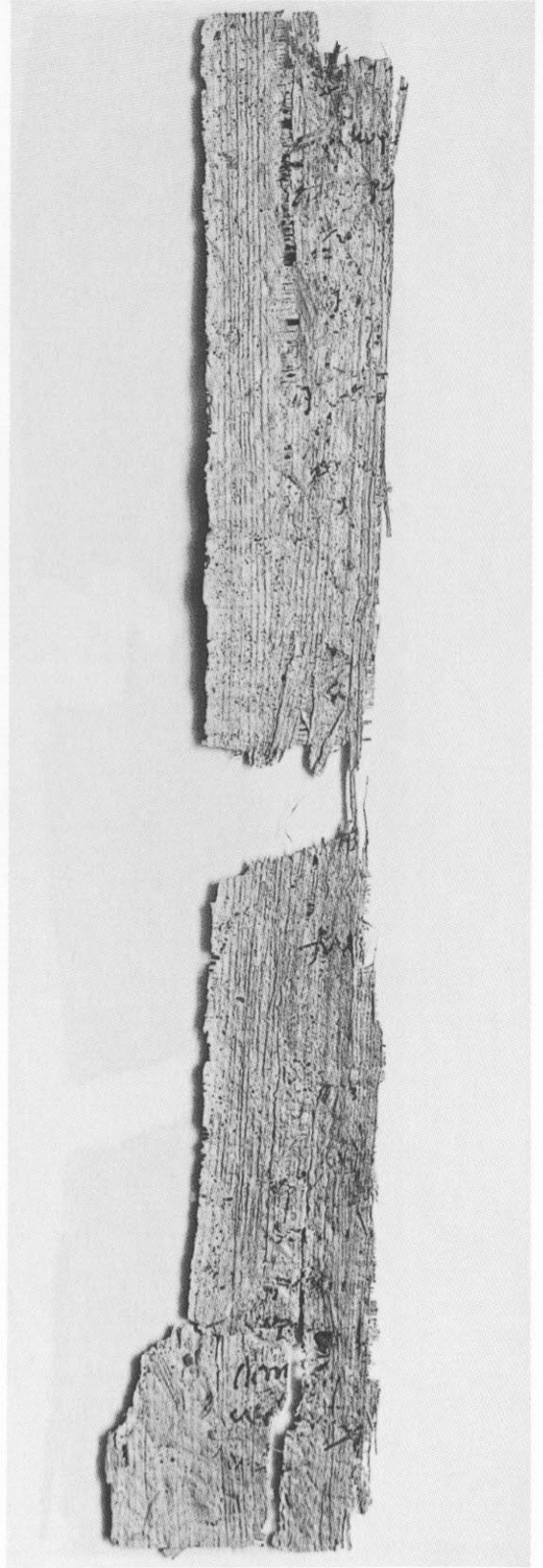
⁴ C.A. HOPE, «Objects from the Temple of Tutu», in *Studies J. Quaegebeur*, II, p. 821.

⁵ G.E. BOWEN - C.A. HOPE - O.E. KAPER, «A Brief Report on the Excavations at Ismant el-Kharab in 1992», *Bulletin of the Australian Centre for Egyptology* 4 (1993), p. 27.

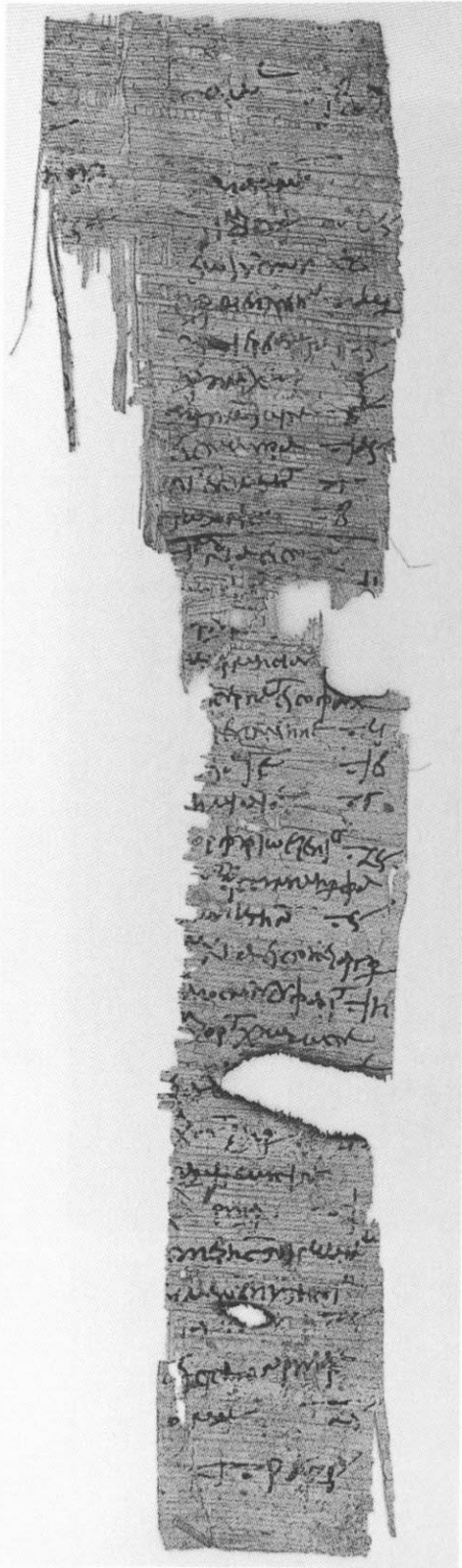
⁶ I am indebted to Drs Iain Gardner and Klaas A. Worp for information on this material.



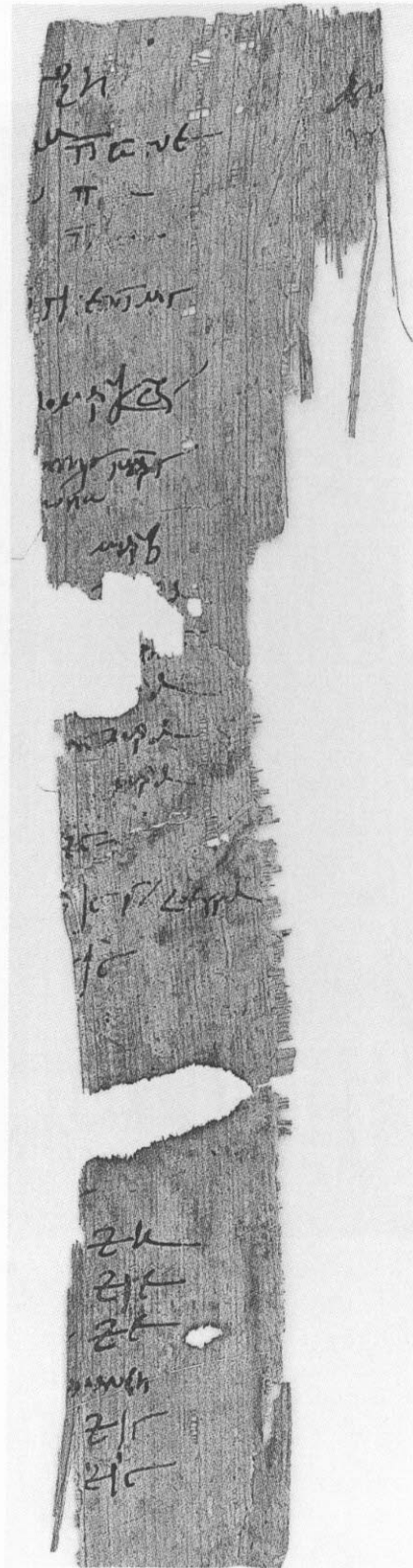
119 A recto



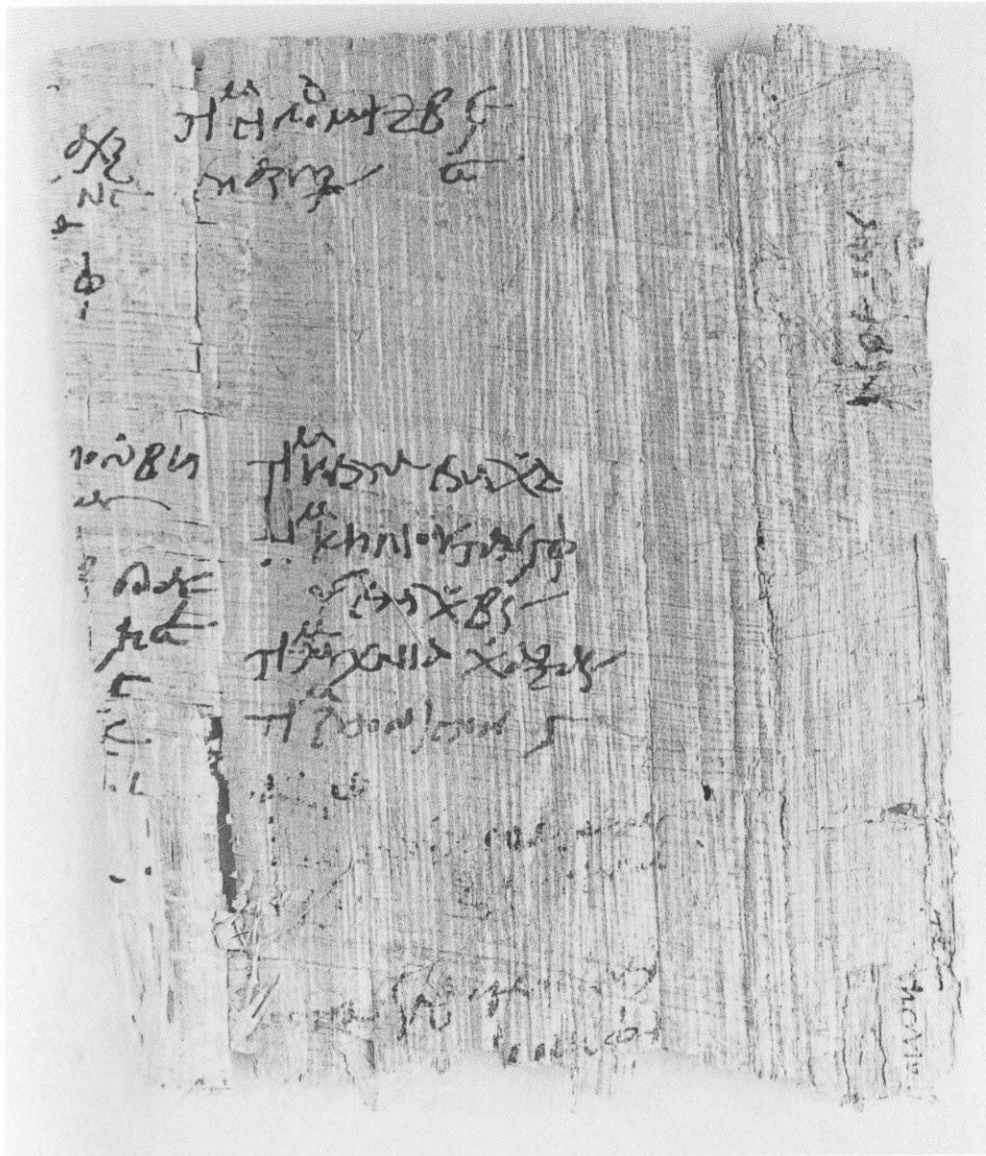
119 B 119 A verso



119 B recto

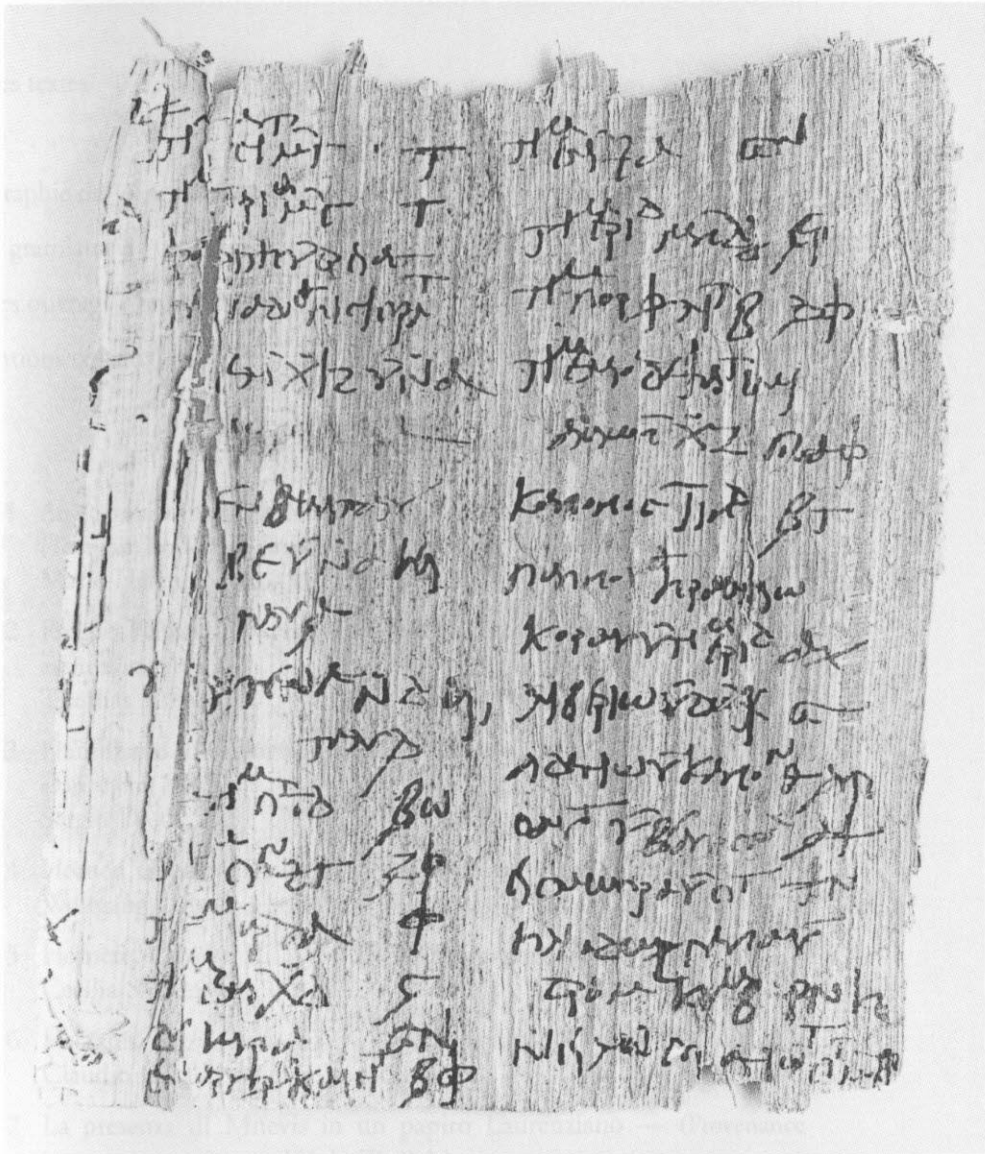


119 B verso



120 recto

TABLE DES MATIÈRES



... première moitié du 11^e siècle
... Sereno Paganini

... dialoganti verbali e scholia minori da un poliglotta scolastico
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